

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES 1      7	
2. AMENDMENT/MODIFICATION NO. <b>88</b>		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
ISSUED BY John F. Kennedy Space Center, NASA Procurement Office – ODIN – OP-MS Kennedy Space Center, FL 32899		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State, and Zip Code)  OAO Corporation 7500 Greenway Center Drive Greenbelt MD 20770				(x)		9A. AMENDMENT OF SOLICITATION NO.	
						9B. DATED (SEE ITEM 11)	
						10A. MODIFICATION OF CONTRACT/ORDER NO.  <b>NAS5-98144/CC90303B</b>	
						10B. DATED (SEE ITEM 13)  December 1, 2001	
CODE		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning ____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.	
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.  B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: <b>NAS5-98144 Contract Clause C.7 Technology Refreshment Process and FAR Clause 52.212-4 Contract Terms and Conditions-Commercial Items, (c) Changes</b>  D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return 1 copies to the issuing office.

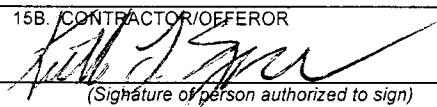

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

## Stennis Space Center --- ODIN SERVICES

Technology Infrastructures: SWRs EAEB 3N09 00 Rev 1 and 5400 3N18 00 Rev 1

Change in Delivery Order Price: \$120,378.26 (INCREASE)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Keith L. Spencer Sr. Contracts Manager		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Penelope A. Ebright Contracting Officer	
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED 23 June 2013	16B. UNITED STATES OF AMERICA BY  (Signature of Contracting Officer)	16C. DATE SIGNED 6/23/03

N 7540-01-152-8070

30-105

STANDARD FORM 30 (Rev. 10-83)  
Prescribed by GSA  
FAR (48 CFR) 53.243

PREVIOUS EDITION UNUSABLE

1. In accordance with Master Contract NAS5-98144, C.7, Technology Refreshment Process, the technology refreshment services referenced below is hereby incorporated into this Delivery Order at a fixed price of \$120,378.26.

SWR #	Subject	Amount
EAEB 3N09 00 Rev 1	Installation of Cat6 wiring to CFO area in B1100 for NASA	\$32,170.29
5400 3N18 00 Rev 1	Installation of fiber cable from B1110 to B1201 in support of new NOC	\$88,207.97
	<b>TOTAL</b>	\$120,378.26

## 2. SWR EAEB 3N09 00 Rev 1

The contractor shall provide the labor (including, but not limited to, engineering, configuration management, user coordination/scheduling, wiring/cabling and equipment installation) and materials necessary to install Cat6 wiring to CFO area on the 3<sup>rd</sup> floor of B1100 for NASA as identified in OAO proposal dated May 20, 2003.

- a. The contractor shall perform the following tasks:
  - (1) Install (2) Cat6 wires from (76) locations back to room 306H.
  - (2) Install (1) 19" x 84" aluminum rack in room 306H.
  - (3) Install (2) double sided vertical troughs on 19" x 84" aluminum rack.
  - (4) Install (5) Avaya Visipatch panels on wall.
  - (5) Install Visipatch distribution rings and horizontal duct on Visipatch panels.
  - (6) Install (1) 6-strand singlemode fiber cable from room 345 to room 306H.
  - (7) Install (2) 100A LIU's in room 306H and equip with 10A panels and C3000A-2 couplers.
  - (8) Install (2) 100A LIU's in room 345 and equip with 10A panels and C3000A-2 couplers.
  - (9) Install (1) Avaya 4-port singlegang faceplate and place (2) Avaya Cat6 jacks and terminate Cat6 wire to (76) locations.
  - (10) Terminate 6-strand fiber into singlemode ST connectors and place in 100A LIU's in room 306H and room 345
  - (11) Test and label Cat6 wire on both ends
  - (12) Test and label fiber on both ends.
  - (13) Provide OAO with redline drawings showing jack locations and jack numbers.
  - (14) Remove all Cat3 wiring once new Cat6 has been cutover.
  - (15) Install new GFE Cisco 4500-6 slot Ethernet switch in new closet
  - (16) Connect new switch via GigE to NASA's internal router.
  - (17) Restore service to all costumers currently being serviced.
  - (18) Return old equipment to be used as spares.
  - (19) Provide network drawing
  - (20) Update database
  - (21) Update security plan
  - (22) Provide project to NASA prior to start.

- b. The contractor shall provide the following material:

- (1) 20,000 feet of Avaya 2071 level 7 wire (CMP-00424AVA-7U-06)
- (2) 320 feet of corning MIC 6-strand singlemode fiber cable (370-948-SMODE-06)
- (3) 200 each Velcro ties
- (4) 192 each Avaya level 7 solid copper cords (108793-969-06-25)
- (5) 152 each Avaya T568A Cat6 jack (246746) green
- (6) 152 each Avaya blank modules (146674)
- (7) 100 each Caddy J-hooks (184873)
- (8) 81 each 14 feet Cat6 station cords (MM14-AV7E-04)
- (9) 76 each Avaya M14L-262 faceplate (197613) white
- (10) 26 packs of 110C-4 connectors for Visipatch panels (073039)
- (11) 24 each Avaya Visipatch distribution rings (532421)
- (12) 20 each D-rings
- (13) 12 each cool cure consumables (142172)
- (14) 12 each P3020A-Z-125 singlemode connectors (157475)
- (15) 12 each C3000A-2 singlemode couplers (105263)
- (16) 5 each Avaya 336 pair Visipatch panel (532210)
- (17) 4 each Avaya 10A panel for 100A LIU (088980)
- (18) 4 each Avaya 100A3 LIU (146050)
- (19) 2 each Avaya Visipatch horizontal duct (539650)
- (20) 2 each double sided vertical trough (11729-503) (166031)
- (21) 1 each CPI 19" x 84" aluminum equipment rack (086047)
- (22) 1 each 2 meter single mode ST/SC fiber jumper (152037)
- (23) 1 each 3 meter single mode ST/SC fiber jumper (152038)
- (24) 1 each 1 meter single mode ST/ST fiber jumper (151986)
- (25) 1 each 3 meter single mode ST/ST fiber jumper (151988)

b. NASA will furnish the following material:

- (1) 1 each GFE Catalyst 4500 Chassis 6 slot
- (2) 2 each GFE Catalyst 4500 2800W AC Power Supply with INT Voice
- (3) 2 each GFE U.S. Power Cord Twist Lock, NEMA 6 -20 Plug
- (4) 1 each GFE Catalyst 4000 Supervisor IV
- (5) 1 each GFE Cisco IOS Basic L3 C4000 Sup ¾ 3 DES
- (6) 1 each GFE Catalyst 4000 Sup III/IV Compact Flash disk, 128MB Option
- (7) 4 each GFE Catalyst 4000 48-port GE Module 10/100/1000 Base-T
- (8) 2 each GFE 1000Base-LX/LH long haul GBIC
- (9) 1 each GFE UPS
- (10) 1 each GFE 8x5xNBD SVC for Catalyst 4500R Series Modular Switch

c. Schedule: The completion of this effort shall be (10) ten weeks after the receipt of a signed Modification.

### 3. SWR 5400 3N18 00 Rev 1

The contractor shall provide the labor (including, but not limited to, engineering, configuration management, user coordination/scheduling, wiring/cabling and equipment installation) and materials necessary to install 72-strand singlemode fiber cable from B1110 to B1201 in support of a new NOC in room 108 of B1110 as identified in OAO proposal dated May 31, 2003.

a. The contractor shall perform the following tasks:

- (1) Install (1) 72-strand singlemode fiber cable from room 103 in B1110 to room 116 in B1201.
- (2) Install (1) 19" x 84" aluminum equipment rack in room 103 in B1110.
- (3) Install (1) LGX-72-port fiber panels in room 103 of B1110 and (1) in room 116 of B1201.
- (4) Terminate 72-strand fiber into ST connectors and place into LGX panels installed in item (3) above.
- (5) Install (1) 72-strand singlemode fiber cable from room 103 in B1110 to room 101 in B1110.
- (6) Install (1) LGX-72-port fiber panel in new equipment rack installed item (2) above in room 103 of B1110 and (1) in existing communications fiber cabinet in room 101 of B1110.
- (7) Terminate 72-strand fiber cable into ST connectors and place in LGX panels in item (6) above.
- (8) Install (2) megaframe cabinets in room 108.
- (9) Install (1) 600B2 fiber shelf in one of the megaframe cabinets in room 108.
- (10) Install (1) 8-strand multimode fiber cable from existing communications fiber cabinet to fiber shelf installed in item (9) above.
- (11) Terminate 8-strand multimode fiber cable at both ends.
- (12) Install (2) 48-port Cat6 patch panels in fiber cabinet in room 101 and (2) 48-port Cat6 patch panels in one of the megaframe cabinets in room 108.
- (13) Install 96 4-pair Cat6 wires from (2) 48-port Cat6 patch panels in room 101 to (2) 48-port Cat6 patch panels in room 108 and terminate.
- (14) Install (1) 24-port Cat6 patch panel in the same megaframe cabinet with the (2) 48-port patch panels in room 108.
- (15) Install (2) 4-pair Cat6 wires to (6) locations around room 108 and terminate into (2) Cat6 jacks in each faceplate.
- (16) Install Panduit from floor to Panduit outlet box mounted above modular furniture and place Cat6 jacks in item (15) above.
- (17) Install (2) MIL-9200 16-slot chassis in communications rack in room 101 of B1110.
- (18) Install (24) each MIL-C2413-15 media converters in B1110 in the (2) chassis installed in item (17) above.
- (19) Install (2) MIL-9200 16-slot chassis in communications rack in room 116 of B1201.
- (20) Install (24) each Mil-C2413-15 media converters in B1201 in the (2) chassis installed in item (19) above.
- (21) Install (1) MIL-4750 SNMP management modules in each of the MIL-9200 chassis in B1110 and (1) in each of the MIL-9200 chassis in B1201.
- (22) Install (1) MIL-9002PSAC extra power supply in each MIL-9200 in B1110 and (1) in each MIL-9200 in B1201.
- (23) Install flextray under floor from room 101 to room 108 in B1110.
- (24) Install ladder rack from new equipment rack installed in item (2) above to wall to support fiber from wall to rack.
- (25) Test and label fiber cables.
- (26) Test and label Cat6 wiring.

b. The contractor shall provide the following materials:

- (1) 4400 feet of Corning Altos 72-strand singlemode fiber cable (370-342-ASMODE-72)
- (2) 3000 feet of Avaya 2071 Cat6 wire (CMP-00424AVA-7uU-06) Blue
- (3) 304 each Cool cure consumables (142172)
- (4) 288 each P3020A-Z-125 singlemode ST connector (157475)
- (5) 288 each C3000A-2 singlemode ST couplers (105263)

- (6) 144 each 3 feet Cat6 station cords (MM03-AV7E-04) green
- (7) 120 each Corning 48-strnad singlemode plenum MIC cable (370-948-SMODE-48)
- (8) 120 each Corning 24-strnad singlemode plenum MIC cable (370-948-SMODE-24)
- (9) 100 Velcro ties
- (10) 60 each 2-meter singlemode ST/SC fiber jumpers (152037)
- (11) 50 feet Corning 8-strand multimode fiber cable (370-949-FDDI-08)
- (12) 48 each 100Base-TX to 100Base-Fx SMF (SC) 15Km converter (226862)
- (13) 36 each 1-meter duplex singlemode ST/ST fiber jumper (151986)
- (14) 24 each 14 feet Cat6 station cords (MM14-AV7E-04)
- (15) 24 each T568A/B Cat jack (246746) green
- (16) 20 each 8-inch L brackets (21074)
- (17) 20 each stanchion clamp (216883)
- (18) 16 each 2-meter duplex multimode fiber jumper ST/SC (152012)
- (19) 16 each P2020C-C-125 multimode ST connectors (118974)
- (20) 16 each C2000A multimode ST couplers (088987)
- (21) 6 each Avaya M16L-262 faceplate (197619) white
- (22) 6 each Panduit outlet boxes (205872)
- (23) 6 each Flextray 2" x 8" x 10" (174337)
- (24) 6 packs cage nuts M6 (CPI)
- (25) 6 packs M6 screws (CPI)
- (26) 6 each LST1U-072/7 termination shelf (106722)
- (27) 6 each 1000ST panels for LST1U (106730)
- (28) 6 each Avaya patch cord organizer (155563)
- (29) 4 each MIL-9200 Media chassis (238276)
- (30) 4 each MIL-4750 SNMP management module (238274)
- (31) 4 each MIL-9002PSAC power supply module (238277)
- (32) 4 each Avaya GigaSpeed patch panel 48-port (246726)
- (33) 3 each Panduit LD5 Raceway 6 feet (131156)
- (34) 2 each double sided vertical trough (166031)
- (35) 2 each M1255-701 Megaframe cabinet (CPI)
- (36) 2 each CPI 12" wall angle support kit (182845) black
- (37) 2 each 12475-001 caster set for megaframe cabinet (191526)
- (38) 1 each Avaya GigaSpeed patch panel 24-port (246728)
- (39) 1 each CPI 19" x 84" aluminum rack (086047)
- (40) 1 pack washer splice kit (214856)
- (41) 1 each Avaya 600B2 fiber shelf (17949)
- (42) 1 each CPI 12" ladder rack (164166) black

c. Schedule: The completion of this effort shall be (10) weeks after the receipt of a signed Modification.

4. Part II "Contract Administration Data", Item 4, is revised as indicated below to incorporate the increase of \$120,378.26 for these infrastructure upgrades:

**TOTAL DELIVERY ORDER VALUE (through Mod No. 88)**

Ordered Seats and Services	\$ 6,794,837.56
Catalog Actuals	\$ 385,318.57

Specialized Services Actuals	\$ 7,800.00
Infrastructure upgrades	\$ 1,601,523.21
Fast Track Mods Authorized	\$ 160,696.29
Subtotal	\$ 8,950,175.63
Less credits	\$ (2,625.55)
Less retainage not earned	\$ (74,871.83)
Subtotal	\$ 8,872,678.25
Seats/service levels projected through 11/30/04	\$ 6,890,083.56
<b>Total Estimated Delivery Order Value</b>	<b>\$ 15,762,761.81</b>

5. Part V "Technology Infusion (Infrastructure Upgrades)", Item 2 is modified to include the subject infrastructure upgrades. The signed date and completion date will be completed in a future infrastructure upgrade modification.

Mod No.	Description	Date Signed	Date Completed	Amount
88	EAEB 3N09 00 Rev Installation of Cat6 wiring to CFO area in B1100 for NASA in room 101 of B1110 for NASA			\$32,170.29
88	5400 3N18 00 Rev 1I Installation of fiber cable from B1110 to B1201 in support of new NOC			\$88,207.97

6. Payment Schedule: Invoicing and Payment for this modification will be made in accordance with Master Contract NAS5-98144, FAR 52.212-4: Commercial Items (May 1997) (Modified).
7. Reporting requirements: The contractor shall provide monthly status reports to the SSC Alternate DOCOTR, with a copy to the DOCO. These reports shall include, as a minimum, installation progress, and potential problem areas.
8. In consideration of the modification agreed to herein as complete equitable adjustment for the changes set forth, the Contractor hereby releases the Government from any and all liability under this delivery order for further equitable adjustments attributable to such facts or circumstances giving rise to these changes.
9. All other terms and conditions of this Delivery Order remain unchanged and in full force and effect.